

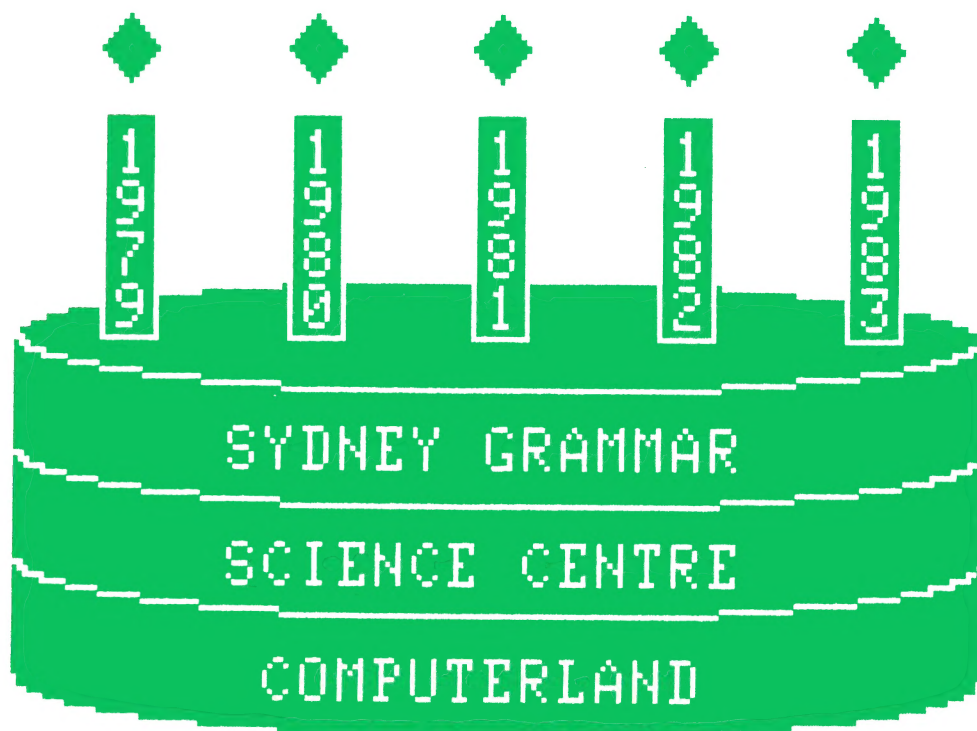
# APPLICATIONS



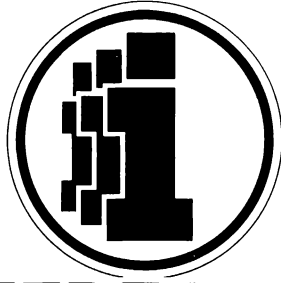
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SYDNEY  
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HAPPY FIFTH BIRTHDAY



HAPPY FIFTH BIRTHDAY



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<b>* APPEICATIONS is EDITED</b>	<b>*</b>
<b>* using SANDY'S WORD PROCESSOR</b>	<b>*</b>
<b>* with 'VISION - 80' card</b>	<b>*</b>

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CLUB MEETINGS : 6.30 p.m.-2nd. MONDAY of each month at the  
 SYDNEY GRAMMAR SCHOOL, SCIENCE AUDITORIUM.  
 MEMBERSHIP : \$15 Joining Fee, \$20 /12 Month Subscription

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## MEETING NOTES FOR OCTOBER

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By Frank Revill, Honorary Secretary.

The meeting was opened at 6.33pm by the President Mr Ron Lombardo. Ron introduced Ms. Sonja Humphries who is producing an article for the 'Australian' on "computer user groups".

Apologies were received from Mr Stan Gifford.

The Minutes of the previous meeting were accepted as read (Moved EM Seconded LB).

The Treasurers Report showed a bank balance of \$776.42 with an amount of \$4000.00 to be deposited, and \$5000.00 held in an investment account.

Hans Hoffman apologized for the mix up with the October copies of Applecations, some members have received the April issue by mistake. If you are one of the above, please contact Hans and he will send out October issues. During Hans's report he moved for an extension of time for the "ANNUAL AWARDS". This is to allow contributions for the whole of 1983 to be considered. The new dates for the awards are outlined on page 6 of the October issue of APPLECATIONS. The motion was passed.

### Bulk Purchasing

---

Ed had a YANG JYE monitor (outlined in the September issue of 'APPLECATIONS') at the meeting for members to look at. The long awaited and ill-fated DAVID-DOS has been cleared by customs but unfortunately the customs charges "exceeded expectations" and the price has risen to \$67.00 (this is our cost). Sorry but we can't help or control the customs charges.

### LIBRARY REPORT

---

Don Riley announced two new PASCAL disks and disk #34 containing a database system. Don also has some updated PASCAL disks.

Our guest speaker was Mr Heinz Schneider (committee member) who spoke on APPLE GRAPHICS (a detailed outline appears in this issue).

### GENERAL BUSINESS

---

It was moved by Ken Ozanne that the club purchase a disk emulation board for use by the membership registrar, this was carried by the meeting.

The annual auction and birthday will be held on Sunday 20th November in the lower carpark of the Grammar school from 12.00 to 5.00pm. Bring a Friend.

Roger Keating is off overseas to attend the IAC Conference and will present a report on his return. SNAUG meeting Tuesday 1st November.

The meeting closed at 8.00pm.

## NOVEMBER MEETING:

---

At the next meeting a talk will be given by Dr. R. Dalglish, from the School of Physics at the University of N.S.W.

Dr. Dalglish gives introductory courses to microcomputing at the university.

The special subject will be 128/256K Memory Expansion for the Apple II, as well as Dual-Ported memory, where INPUT/OUTPUT cards are used to create virtual memory.

### FUTURE MEETINGS:

---

November : 14th.

December : 12th.

### MARKET DAY:

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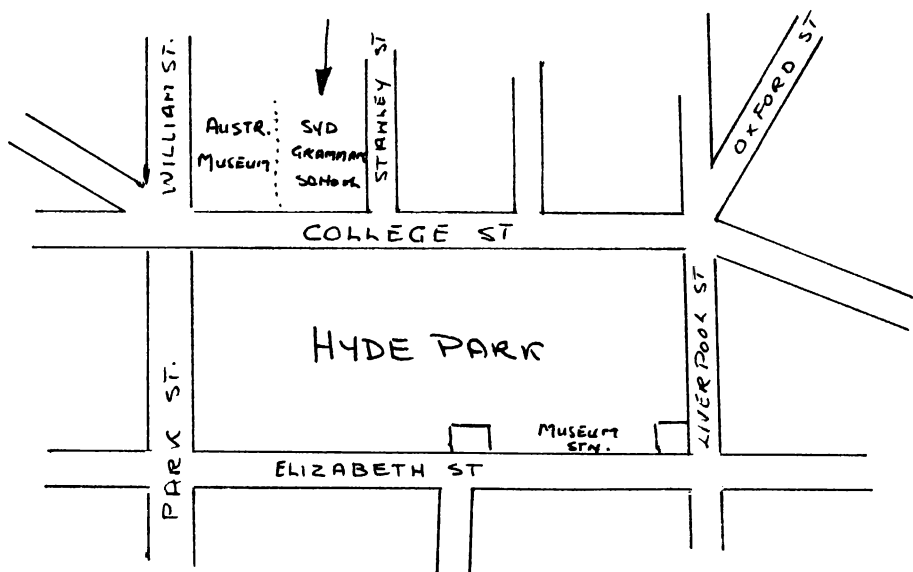
Sunday

November : 20th.

12 p.m. - 5 p.m.

SUNDAY  
NOVEMBER 20th  
12 - 5 p.m.

at  
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# THE HISTORY OF THE APPLE USERS GROUP (SYDNEY)

Compiled by John Rotenstein

This year, 1983, marks the *FIFTH* birthday of the Apple Users Group (Sydney). In these five years, the group has grown from a gathering of enthusiasts to one of the largest User Groups in the World.

This is a brief recount of the Group's history over the years.

## *1978:- The Beginning*

-----

Only a select few have been witness to the entire history of the group. Therefore, the early history can best be told by one such person. Following is an extract from APPLICATIONS, February 1980.

"The Apple Users Group, Sydney Australia, was established on the 20th November 1978 at a meeting at Computerland. The AUG was established by a small group of Apple enthusiasts and supported by Computerland and its employees. The first committee was Roger Keating, Peter Webster, Neil Bennett and Bill Hood. The Group met once a month, established a Program Library and published four issues of the APPLE-LICATIONS newsletter."

"The organisation and direction of the AUG was heavily dependant upon ComputerLand and its employees, particularly Peter Webster and Bruce Kehlet. The rapid expansion of ComputerLand in 1979 meant that these people were not able to devote a lot of time or energy to the organisation of the Group."

During this time, the Group held its meetings in Computerland, which was then located at 55 Clarence Street.

The Group Magazine, then named APPLE-LICATIONS was not entirely regular, and actually stopped publication after only four issues because those involved did not have enough time to devote to the task.

## *1979:- A New Beginning*

-----

On November 12th, 1979, the Group held its second Annual General Meeting. Four members composed the Group committee:

Co-Presidents: Neil Bennett  
Bruce Kehlet

Secretary: Roger Keating

Treasurer: Peter Kazacos

At this meeting, the Group, after noting that it had lost direction over the last year, decided that it should take responsibility for its own affairs. This meant separation from Computerland so as to give the Group independence.

At the next meeting, Derek Camiller and Ian Webster became the new newsletter Editors, with the aim to produce a quarterly newsletter. This was called APPLICATIONS.

Neil Bennett resigned as President in April, so that he could devote his time to a software package which he was developing. Neil also resigned as the Australian representative of the International Apple Core, and Roger Keating was elected to this position. John Smith was elected for the position of secretary.

At the June 1980 meeting, Bruce Kehlet announced his resignation as President. George Tahmindjis was elected to the committee, and Roger Keating became acting President until the AGM.

## *1980: A New Decade of Computing*

-----

The following were elected to the committee at the 1980 AGM:

R. Keating (President)  
B. Kehlett (Vice Pres)  
J. Smith  
I. Webster  
P. Kazacos (Treasurer)  
D. Camiller  
G. Tahmindjis

The main change of 1980 was that of venue. Previously, all meetings had been held at Computerland. So as to preserve the Group's independence, a new meeting venue was sought after.

Two possibilities were presented, being the SCIENCE CENTRE, near Computerland and the MENZIES HOTEL.

The September meeting was held at the Teachers Federation Building, where the president was recently attending.

From the October meeting, the venue changed to the SCIENCE CENTRE at 35-43 Clarence Street.

At the meeting of May, 1981, there was much unrest in the Group over the topic of the Copyright Laws. It meant that the group would be liable if it knowingly allowed copying of copyright material at a meeting. The President, Roger Keating, felt that officials of the Group could be prosecuted, and, therefore, the Group should include in its policy that such actions are not condoned.

Bill Hood complained that, as there was no constitution for the Group, such a motion was meaningless. Due to the feelings at the Group, the President resigned, as did the Vice-President and the Treasurer. The latter two did, however, stay until the next elections, and Bruce Kehlett took over as Acting President.

Following this, a Committee was formed to draft a constitution for the Group to be ready for the July meeting.

On June 22, 1981, a special meeting was organised, with STEVE SHANKS, Marketing Director for Apple Computer, as Guest Speaker. He addressed the Group on the future of Apple, and informed those present of current developments in the field of computers.

Hans Hoffman took over the position of Editor, and produced a newsletter at the June and July meetings. August and September produced small magazines, under the name of APPLICATIONS.

The August meeting was the first meeting held at the venue of SYDNEY GRAMMAR SCHOOL, Stanley Street. This venue is still being used in 1983.

## *1981:- A Very Good Year*

-----

On the 14th September 1981, the Annual General meeting was held. The committee elected was as follows:

President: B. Kehlett  
Vice Pres: M. McGuinness  
Secretary: C. Rutherford  
Treasurer: P. Kazacos  
Librarian: B. Hood  
Editor : H. Hoffman  
Committee: G. Saint  
G. Tahmindjis

A constitution, drafted by Bill Hood and Michael McGuinness, was amended and voted on. This procedure took two hours, making it the longest AUG meeting.

October, 1981, brought along the first of the regular Group magazine. This magazine is published 10 times a year, and is the handywork of Hans Hoffman.

APPLEFEST '82 was held on 26th to 29th January. The Group was provided a free stand, compliments of Electronic Concepts. About 70 new members joined through the Applefest. →

### 1982:- And Larger Than Ever

Previous to the 1982 AGM, Bruce Kehlet had announced that he would not be standing as President, but changed his decision before the elections. New to the Committee was Ron Lombardo, who was also a nominee for President.

President: B. Kehlett

Vice Pres: M. McGuinness  
Secretary: C. Rutherford  
Treasurer: P. Kazacos  
Editor : H. Hoffman  
Committee: E. Mehrtens (B/P)  
R. Lombardo

A major event of 1982 was the AUG Market Day, held on 18th December, 1982. This Market Day provided members a day's outing with cheap software and hardware on sale. The software AUCTION was very popular, and many savings were made. A raffle was also held.

A second event for the AUG was on 10-12 March, 1983. This was the 1st Australian Personal Computer Show. The AUG had a (small) stand at this exhibition, and membership figures once again increased.

### 1983:- And Still Going Strong

After FIVE YEARS, the Group is still moving onwards. Membership is around 500 - one of the biggest Apple User Groups in the world, and is in a good financial position.

Elections were held in August 1983, with the following results:

President: R. Lombardo  
Vice Pres: M. McGuinness  
Secretary: F. Revil  
Treasurer: P. Kazacos  
Committee: H. Schneider  
S. Gifford

At the September meeting, the new Committee announced its intentions for the future of the AUG. These intentions outlined the course the group should take. This is becoming increasingly important as the group grows.

As can be seen from this short account of the AUG (Sydney)'s history, it has alot going for it, and is bound to last for another five years, and longer still.

—|

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## EDITORIAL

This anniversary issue is again dominated by the good works of JOHN ROTENSTEIN. Still a school student, he seems to be an untiring worker for our magazine. He has spent much time researching the details for his history article. The cake picture was designed by John, even so he wrote his 'Softstory' software reviews, as well as producing an interesting utility program, with good documentation. I hope you enjoy his material as much as I do.

Maybe our new executive is settling in to their functions. It certainly looked that way at the last meeting.

After getting through the business of the club quickly, with only one procedural hiccup (no meeting should be without it). We were treated to a well-researched talk on hi-res graphics. The question-time enabled many problems to be solved. Bill Hood brought some of his recently acquired goodies for sale.

Our forthcoming MARKET DAY on November 20th. should again prove a great success for bargain hunters. Last year many sellers were brought to tears by the prices their goods auctioned at. This year's day is in our anniversary month, so bigger and better things are anticipated.

→



Thanks again to the SYDNEY GRAMMAR SCHOOL for providing us with the venue for our market day. Without them we would not be able to offer such a great location, close to transport, parking.

#### APPLESEED

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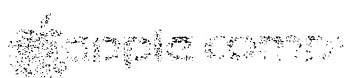
Congratulations to Stan Gifford, our club membership coordinator, who, together with his wife, has produced a small addition to the Apple community.

#### BUY-SELL-TRADE

---

FOR SALE: MACROTRONICS Radio Teletype interface for Apple II c/w cassette and disk-based software. Also MDK-17 Radio Teletype Modem. Cost over \$500, sell \$300 R.Woodward Ph: 546-1927

FOR SALE: WIZARDRY Character Editor. (Cheat program) \$20. Ken Ozanne Ph: 047-51-1547



#### RENEWED CONTACTS WITH APPLE AUSTRALIA

---

President Ron Lombardo and Editor Hans Hoffman, met with Apple Marketing Manager, David Roman, at Ryde during October. The meeting was the result of recent approaches made to Apple Australia.

Mr. Roman expressed regrets that Apple Aust. had not made earlier contacts, however shortage of manpower and the pressure of work during the initial stages of setting up the Australian offices this year had been responsible.

Whilst direct financial support was not sought, as the club is in a very healthy position, it was communicated that the club was highly promotional of the Apple products. Both visually at the meetings, as well as by means of the phone through the members of the committee, the club represented Apple. It was therefore necessary for us to be part of Apple's activities in Australia.

This feeling was shared by Mr. Roman, and he made the following positive suggestions:

1. That the A.U.G (Sydney) be included in the dealer mailing list. This would automatically keep us up-to-date with the latest developments w.r.t. policy, and technical information.
2. The proposed bulletin board in Melbourne could be made accessible to members, with minimum charges limited to user-time.
3. Assistance will be given in obtaining club hardware, enabling better meeting demonstration support.
4. Regular demonstrations of new Apple equipment will be arranged, initially of the Apple IIe, Apple III, and Lisa.
5. Promotional material will be available to club members at special prices.

Our meeting concluded with a request by David Roman - on behalf of Apple Australia - to pass on it's congratulations to the A.U.G with our Fifth Birthday.

## APPLE HIRES

From a talk given at the October meeting by Heinz Schneider.

One of the reasons why the Apple computer was so successful is that it was one of the first personal computers with Hi-res graphics capability as standard.

I would like to talk about two aspects of the Hi-res facilities on the APPLE. First I propose a new way of looking at the addressing arrangements of the two Hi-res and the two TEXT pages. Secondly I would like to give some explanation how the colours and in particular the Hi-res colours are generated.

When it comes to the addressing of the four pages (two TEXT pages and two Hi-res pages), I first suggest to divide each page into three blocks. If we look at Hi-res page one, the starting addresses for each block will be \$2000, \$2028, and \$2050. The equivalent numbers in the everyday decimal notation are: 8192, 8232 and 8272. As you can see the hexadecimal numbers, which are usually preceded by a dollar sign, have a cleaner look when it comes to addresses of the main sections of the Hi-res page. Therefore I will stick to hexadecimal values most of the time. If you wonder how I picked the beginning of each blocks have a look at a table of line-starting-addresses in hexadecimal in your APPLE II reference manual page 21.

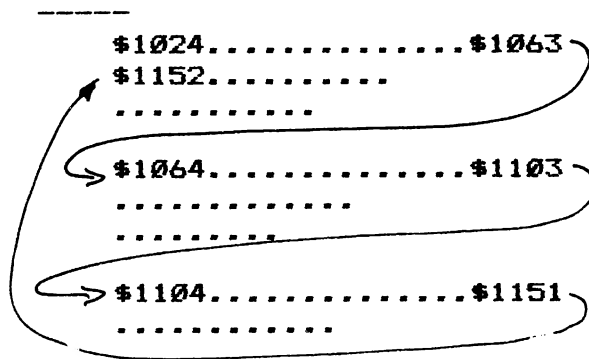
The reason why I suggest the new concept of blocks, is that the difference between each block is constant. This is true for TEXT as well as Hi-res pages. This difference, which I shall call block-offset, is 40 (\$28). My next suggestion is to divide each block into 8 lines. Each line inside a block, you will observe, differs by 128 (\$80), let's call this the line-offset. So far we looked at addresses in a vertical direction. Let's now look at the horizontal direction. Horizontally, each line can be broken up into 40 (\$28) boxes which are numbered sequentially.

That is, the difference in the addresses of adjacent boxes is 1 (\$1). So the box-offset equals 1.

From this point on we have to look at TEXT and Hi-res pages separately. Let's look at the TEXT page first. When we have a TEXT page, each box equals one byte in the APPLE memory. Each of these bytes will contain the ASCII code for one character. Some of these characters will be the ASCII code for spaces and thereby will be invisible on your APPLE screen.

To sum up the TEXT page: vertically there are 3 Blocks times 8 Lines making 24 Rows of text; horizontally there are only 40 (\$28) boxes, each being equivalent to one displayed character making 40 columns of text display. The size of APPLE memory dedicated to one TEXT page is 1024 (\$400) bytes, which is commonly referred to as 1k byte of memory.

Fig.1 TEXT Page 1



For a Hi-res page the main difference is that we have 8 bytes to each box. I should mention at this point that that each box displays on the APPLE screen, in either TEXT or Hi-res mode, as 7 horizontal and 8 vertical dots.

In the standard text display a maximum of 5 horizontal and 7 vertical dots are used for the display of a character. But in the Hi-res mode the full 7 —>

horizontal dots are taken from the least 7 significant bits of one byte and the 8 bytes display vertically. These dots, of which there are  $7 \times 8 = 56$  to each box, are usually referred to as pixels.

Fig.1

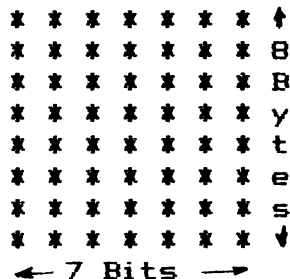
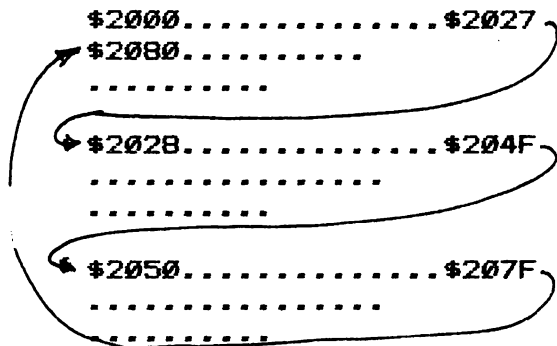


Fig.2 Hi-res Page 1

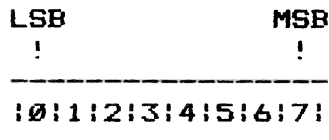


The difference of the addresses for the 8 bytes within one Hi-res box is 1024 (\$400). In other words the value of a Hi-res-byte-offset (since this occurs only in the Hi-res mode) is 1k, the same value as the size of a TEXT page. This last point should make it obvious why a Hi-res page requires 8k bytes of memory, or 8 times the amount of a TEXT page. Further, by understanding the similarity in addressing of a TEXT and a Hi-res page, it should also be obvious that this is due to the fact that the two modes share a large amount of common hardware (which is the digital logic circuitry decoding the addresses for the two display modes).

A Hi-res byte is displayed with the least significant bit (bit 0) to the left of the APPLE screen, then followed in ascending order by the next 6 bits (bit 1 to 6).

The most significant bit (bit 7) is invisible and is used as a control bit. I shall come back to the function of the control bit later.

Fig.3 Byte display



To summarize the Hi-res display: Vertically there are 3 blocks times 8 lines times 8 bytes resulting in  $3 \times 8 \times 8 = 192$  dots, or PIXELS. Horizontally there are 40 boxes times 7 bits resulting in  $40 \times 7 = 280$  dots, or pixels.

Fig.4

Hires Page 1
! \$2000.... Block 0 !
! \$2028.... Block 1 !
! \$2050.... Block 2 !
Offset = 28 (40 )
16 10
Page 1, Block 0
! \$2000.... Line 0 !
! \$2080.... Line 1 !
! \$2100.... Line 2 !
! \$2180.... Line 3 !
! \$2200.... Line 4 !
! \$2280.... Line 5 !
! \$2300.... Line 6 !
! \$2380.... Line 7 !
Offset = 80 (128 )
16 10
Page 1, Block 0, Line 1
! ! ! 40 Boxes ... ! !
Offset = 1 (1 )
16 10

There is just one more major point about the addressing in the two display modes we should have a look at. To it's significance, we have to take the memory in the APPLE as reference point. →

\*-Taking as an example the beginning of the Hi-res page 1, we start of with address 8192 (\$2000). This address refers to the first block, first line, first box and first byte in Hi-res page 1. Ascending in memory addresses (\$2001, \$2002, \$2003, etc.) we also move along horizontally on the Hi-res screen. We reach the right-most point of the APPLE screen when the memory address equals \$2027.

\*-Incrementing the address again to \$2028 means a jump to the left hand side of Hi-res page 1 (second block, first line of the second block, first box and first byte of this box). By further incrementing the memory address we move again to the right of the screen until we reach address \$204F.

\*-One more increment means address \$2050 and a jump to the left and one block down the screen (last block, first line of the last block and the first byte of the first box). 39 (\$27) more increments of the address moves us again across to the right of the screen till we reach address \$207F.

Now watch for the interesting part! The eight addresses \$2078, \$2079, \$207A, \$207B, \$207C, \$207D, \$207E and \$207F do not appear in the Hi-res display. But the next address \$2080 means a jump back to the left and near (one byte below) the top of the APPLE Hi-res page 2 (first block, first line, first box and second byte). As a rule, in both TEXT and Hi-res pages, everytime we return to the first block (which happens after every 3 Lines of 40 boxes) we have to skip 8 addresses, or 8 bytes in the APPLE memory.

In a TEXT page there would be eight returns (actually only 7 plus 1 tail at the end of the TEXT page) meaning there are 8 sections of 8 hidden bytes in a TEXT page. In TEXT page 2 these hidden bytes are normally not used, but the 8 sections of 8 bytes hidden amongst TEXT page 1 (the primary TEXT page) is available to DOS and any cards in slot 1 to 7 (like printer cards in slot 1).

For details of the recommended allocation for each card you could check in the APPLE reference manual.

In a Hi-res page there are 8 times the amount of hidden bytes than in a TEXT page making a total of  $8 \times 8 \times 8 = 512$  bytes, or 1/2k of memory per Hi-res page. The hidden memory in the two Hi-res pages is usually wasted by most programs.

#### LISTING 1:

```

-----
1000 PRINT : PRINT "TEXT PAGE
      1": PRINT
1010 ADDRESS = 1024
1020 TXTPG = 1: REM TRUE
1030 GOSUB 2000
1040 :
1050 PRINT : PRINT "TEXT PAGE
      2": PRINT
1060 ADDRESS = 2048
1070 TXTPG = 1: REM TRUE
1080 GOSUB 2000
1090 :
1100 PRINT : PRINT "HI-RES PAGE
      1": PRINT
1110 ADDRESS = 8192
1120 TXTPG = 0: REM FALSE
1130 GOSUB 2000
1140 :
1150 PRINT : PRINT "HI-RES PAGE
      2": PRINT
1160 ADDRESS = 16384
1170 TXTPG = 0: REM FALSE
1180 GOSUB 2000
1190 END
1200 :
2000 BLOCK = ADDRESS
2005 FOR T=1 TO 500: NEXT
2010 GOSUB 3000
2020 GOSUB 3000
2030 GOSUB 3000
2040 RETURN
2050 :
3000 LINE = BLOCK
3005 FOR T=1 TO 500: NEXT
3010 GOSUB 4000
3020 GOSUB 4000
3030 GOSUB 4000
3040 GOSUB 4000
3050 GOSUB 4000
3060 GOSUB 4000
3070 GOSUB 4000
3080 GOSUB 4000
3090 BLOCK = BLOCK + 40
3100 RETURN

```



```

3110 :
4000 BYTE = LINE
4005 FOR T=1 TO 500: NEXT
4010 IF TXTPG THEN PRINT LINE:
      GOTO 4100
4020 GOSUB 5000
4030 GOSUB 5000
4040 GOSUB 5000
4050 GOSUB 5000
4060 GOSUB 5000
4070 GOSUB 5000
4080 GOSUB 5000
4090 GOSUB 5000
4100 LINE = LINE + 128
4110 RETURN
4120 :
5000 PRINT BYTE
5005 FOR T=1 TO 100: NEXT
5010 BYTE = BYTE + 1024
5020 RETURN

```

#### LISTING 2:

```

-----
1000 PRINT : PRINT "HI-RES PAGE
      1": PRINT
1020 ADDRESS = 8192
1040 :
1060 FOR BLOCK = ADDRESS TO
      ADDRESS + 2 * 40 STEP 40
1080 FOR LINE = BLOCK TO BLOCK +
      7 * 128 STEP 128
1100 FOR BYTE = LINE TO LINE + 7
      * 1024 STEP 1024
1120 PRINT BYTE
1140 NEXT BYTE
1160 NEXT LINE
1180 NEXT BLOCK
1200 END

```

#### LISTING 3:

```

-----
1000 HGR2
1020 ADDRESS = 16384
1040 REM --- 1 = BIT 0
1060 REM --- 2 = BIT 1
1080 REM --- 4 = BIT 2
1100 REM --- 8 = BIT 3
1120 REM --- 16 = BIT 4
1140 REM --- 32 = BIT 5
1160 REM --- 64 = BIT 6
1180 REM --- 128 = BIT 7 THE
      HI-RES CONTROL BIT
1200 :
1220 REM --- CONTROL BIT = OFF
1240 EVEN = 1 + 4 + 16 + 64
1260 ODD = 2 + 8 + 32
1280 GOSUB 2000
1300 :
1320 REM --- CONTROL BIT = ON
1340 EVEN = EVEN + 128
1360 ODD = ODD + 128
1380 GOSUB 2000

```

```

1400 :
1420 REM --- CONTROL BIT = OFF
1440 EVEN = 2 + 8 + 32
1460 ODD = 1 + 4 + 16 + 64
1480 GOSUB 2000
1500 :
1520 REM --- CONTROL BIT = ON
1540 EVEN = EVEN + 128
1560 ODD = ODD + 128
1580 GOSUB 2000
1600 GOTO 1240
1620 :
2000 FOR BLOCK = ADDRESS TO
      ADDRESS + 2 * 40 STEP 40
2020 FOR LINE = BLOCK TO BLOCK +
      7 * 128 STEP 128
2040 FOR BYTE = LINE TO LINE + 7
      * 1024 STEP 1024
2060 FOR BOX = BYTE TO BYTE + 38
      STEP 2
2080 POKE BOX,EVEN
2100 POKE BOX + 1,ODD
2120 NEXT BOX
2140 NEXT BYTE
2160 NEXT LINE
2180 NEXT BLOCK
2200 PRINT CHR$(7): REM ---
      BELL
2220 RETURN

```

#### APPLE HIRES - program comments

-----

To help you in experimenting with some of the ideas and suggestions I discussed in the previous article, I wrote three short basic programs:

The first program calculates the APPLE memory addresses along the left edge of the display by using the concept of blocks, lines and bytes. The concept of boxes is used in the third program. For the two TEXT pages only the concept of blocks and lines is required, resulting in 24 addresses. For the two Hi-res pages the 8 bytes within the left-most boxes have to be considered too, this yields 192 addresses. I used a less efficient, but simple structure of multiple subroutine calls to illustrate the principles.

The second program does the same job as the first, but uses (for this case) a more efficient method of nested loops. →

I made it list only the addresses for the Hi-res page 1. Compare these addresses with the ones listed in the old APPLE II+ reference manual page 21.

The third program shows you how to poke individual bits/dots on the a Hi-res page.

It also shows:

- i) how each second, or odd numbered byte has to be changed to result in a continuous pattern or Hi-res colour.
- ii) how bit 7 (the Hi-res control bit) controls a half dot/pixel shift or a change in Hi-res colour. The program continuously changes Hi-res colour (on a black and white/green monitor this will appear as a

horizontal shift of the very fine vertical bars). The change is announced by a beep (to keep you awake) and starts in the top-left corner moving slowly (remember this is BASIC) to the bottom-right corner.

To get the full benefit you should experiment with this program, like changing the values POKEd in the third program or POKEing the same values regardless of even or odd memory addresses.

In the near future I hope to have a printer graphics dump program ready using the concepts I talked about. Good luck with your experimenting. —

---

## SPECIAL INTEREST GROUPS

---

### SYDNEY NORTHSIDE APPLE GROUP

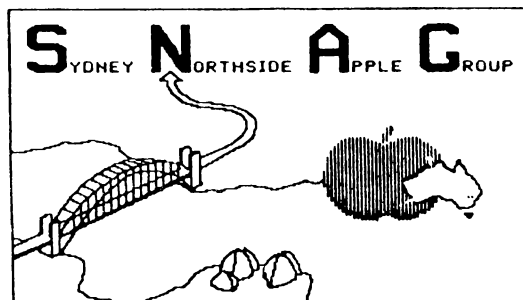
---

MEETINGS: First tuesday in the month at 6.30 p.m.

LOCATION: Willoughby Library, off Victoria & Archer sts. Chatswood.

An associate of the AUG, all members are welcome. Special interests are catered for including Pascal, Business, Hardware, etc..

Discussion is in small groups.



---

## QUESTIONS & ANSWERS

---

Answers by Ken Ozanne

1. From Ian Scott.

I typed in Amp-L-Soft from Nibble Volume 3 number 7. There is a label "AMPER" which comes at \$081C. All went well except when I assembled instructions

```
LDA #>AMPER
and LDA #<AMPER
```

at lines 60 and 62 of the listing on page 26. The first came out as A9 08 (instead of A9 1C) and the second came out as A9 1C (instead of A9 08). Once spotted, it was easy to fix, but I don't understand what is going on.

This is an easy one. You were using BIG MAC (which is the assembler I recommend) but the Nibble writer used the APPLESOFT TOOLKIT assembler. —

As is entirely too common, the article did not emphasize which assembler was used. (My rule of thumb is that BIG MAC is usual in CALL- A.P.P.L.E., the S.C. ASSEMBLER in Apple Assembly Line, Phase Zero in DTACK GROUNDED and elsewhere I will assume the TOOLKIT until otherwise indicated. Oh, Randy Hyde and Roger Keating like LISA.)

Unfortunately, in this precise situation, BIG MAC and the TOOLKIT ASSEMBLER take opposite views as to which symbol indicates the high byte. For BIG MAC, #>AMPER means the high byte of AMPER and #<AMPER the low byte of AMPER. Obviously, the TOOLKIT does the reverse.

## 2. Anonymous.

Being clumsy, I have developed a habit of starting a session with my word processor by typing "DELETE FILE" instead of "LOAD FILE". Help!

This is also an easy one. I have sent you a copy of a utility called UNDELETE. Provided you use it before compounding the problem, all should be well. Leave your wordprocessor (you would leave Sandy's by typing CONTROL-D twice), LOAD UNDELETE from the utility disk, swap the disks back again and type RUN. From there, just follow the instructions.

This utility is on my DOS COURSE disk if anyone needs it. It is in the public domain, so anyone with the disk should feel free to pass it on. (Same with any public domain programs from my disks.)

I might point out that you obviously don't use Sandy's word processor. Sandy makes it almost impossible for errors like this to happen because you have to spell out the DELETE but LOAD is a single key command.

SAVE is single key, but Sandy's won't attempt to SAVE an empty file. It isn't perfect, but Sandy is always upgrading and listens to suggestions.

## 3. From Richard Colley.

I have read about "R" and "S" files, but I don't understand them. What are they and what do they do?

Neither of these file types is regularly used. Apple have made one use of "R" type files in the Applesoft toolkit (they are relocatable machine language files), but nowhere else to my knowledge. I have seen "S" type files in one commercial program but I don't immediately remember which one and I have never got round to checking the usage.

The short answer that you are unlikely to see either unless you use the toolkit extensively. On the other hand, it is easy to play around with file types yourself and, for instance, display all "A" type files as "S" type or even "X" type. To do that, just POKE 45993,216 (X has ASCII code D8 =216, 45993 = \$B3A9). POKE the same location with 193 when you get tired of looking at X files. These POKES will not do anything permanent unless you INIT a disk while they are in force. Otherwise, merely rebooting will get things back to normal.

I should mention that NIBBLE magazine had a long series entitled FUN WITH THE TOOLKIT which provided a lot of information about this valuable utility.

## 4. From Richard Colley again.

I would appreciate information on how to use the & command to transfer information between BASIC and machine language.

There is no very short answer to this one, though I will provide an example below. I deal with this subject in my assembler language course and will deal with it at more length in my MASTERING MACHINE CODE ON YOUR APPLE II, which should be available around March next year. But, in the meantime, the best sources of further information are the first CALL A.P.P.L.E. IN DEPTH volume, "All About Applesoft" and the various "Peeking at CALL A.P.P.L.E." volumes.

Briefly, the & command in Applesoft acts as if you had typed CALL 1013 (3F5 hex). At \$3F5 you can store a jump command, say:

```
4C 00 80 JMP $8000
```

this transfers control to location \$8000 where you will have previously stored a machine language program to do whatever you wanted. For instance:

```
8000- 20 3A FF      JSR FF3A
                        ;ring bell
8003- 20 3A FF      JSR FF3A
                        ;ring bell
8006- 20 3A FF      JSR FF3A
                        ;ring bell
8009- 20 3A FF      JSR FF3A
                        ;ring bell
800C- 20 3A FF      JSR FF3A
                        ;ring bell
800F- 20 3A FF      JSR FF3A
                        ;ring bell
8012- 4C 58 FF      JMP FF58
; Go back to the BASIC program
```

You can type all this in by:  
CALL -151  
(to get into the monitor)

```
3F5:4C 00 80 (return)
8000:20 3A FF 20 3A FF 20 3A FF
20 3A FF 20 3A FF 4C 58 FF
(return)
CONTROL-C (return) (getting back
to Applesoft)
```

Now type FP (to get rid of any old Applesoft program hanging around)

```
100 HOME:PRINT"START OF PROGRAM"
120 PRINT:PRINT"THIS WILL RING
      BELLS"
140 &
160 PRINT"END OF PROGRAM"
200 END
```

Now RUN this program and you should have demonstrated a use of the & command.

## 5. From many people.

I have an automatic ICE card in my Apple and now I can't get CP/M to work. Help!

This has been my most frequently asked question over the last two or three months. The answer is to get hold of a copy of CP/M version 2.23, 60K CP/M. This works perfectly with the ICE card.

That solution is not available if you don't have a 16K (or larger) RAM card. Such things are now sufficiently cheap that everyone should have them. As a matter of fact, since I am changing over to 128K cards, I have a couple for sale at present for quite reasonable prices. If you are seriously running CP/M, you need a total of 64K RAM in your Apple to allow for running major applications programs like DBASE II. Having more RAM is convenient for machine language programmers or those wanting to use phantom disks, but is not essential for CP/M work.

The ICE card appears to be the best Apple parallel printer interface card available at the moment, having quite a bit of graphics dump capability built in for most popular printers. You should always see interface card and printer working together before purchase, of course.

If you really can't manage the CP/M 2.23 and 16K card, you can simply remove the ICE card temporarily to run CP/M but you will need some other card to interface to the printer. —



## APPLE USER GROUP (Sydney)

### ----- ANNUAL AWARDS ----- 1983

- 1) "The best article which appeared in 'Applecations' and was written by an AUG (Sydney) member."
- 2) "The best program which appeared on a club disk and was written by an AUG (Sydney) member."
- 3) "The AUG (Sydney) member who, not holding any office within the AUG (Sydney), contributed most to the club."

-----

The awards cover the 1983 calender year.

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The AUG (Sydney) bye-laws state that : "Nominations for Annual awards shall be made in writing to the Secretary. They shall contain the names of the proposer and seconder, and the reason why the nomination has been proposed."

-----

THE CLOSING DATE FOR NOMINATIONS IS JANUARY 15.

-----

A list of nominations and a voting slip will be sent to each AUG member with the December issue of 'Applications'.

Voting slips must be returned by 1st. February 1983.

The Awards will be announced at the February AUG meeting.

### ----- PRIZES -----

The prize for EACH category will be an appropriately

'Australian Designed' 80-Column card.

VISION - 80

# THE INFINITE NUMBER OF HI-RES PICTURES

---

By John Rotenstein

Most of you have probably heard of "The Infinite Number of Monkeys". It's a fun program which tells a story of a collection of monkeys with typewriters. The idea is that with a large number of monkeys typing away, every possible written work would be typed. For a better explanation, I suggest you see the program.

Well, the same thing can be applied to the hi-res graphics screen on the APPLE, and the lo-res screen, too.

In theory, if you flicked through the finite number of possibilities, you could see every graphics combination possible. You would see everything from Raster Blaster to the Locksmith logo to your very own name in vivid colours. Of course, the pictures may not be too easy to come by.

There might be beautiful pictures with your name down the bottom, but it may be upside down. You will even see the Australian flag with one star less!

All this may seem like fun, but not when you realise the number of pictures you must sit through to get the one you want.

For simple lo-res, 40 X 40, 15 colour graphics, the possibilities are:

1600  
15

That is, fifteen to the power of 1600, or fifteen multiplied by itself 1600 times, or, even simpler, ALOT!

If you think that's bad, the possibilities for a simple BLACK & WHITE hi-res APPLE graphics picture is:

53760  
2

To show how immense this really is, two to the power of 355 is 73,391,956 with 99 zeros after it. (That's as far as my calculator will go!)

Your APPLE could (almost) quite simply calculate 2 to the power of 487, which is already 255 numbers long.

If all of these Hi-res pages were viewed at hundreds a second, a human life time would not even be long enough to see all the pictures possible.

In case you don't believe me, I suggest that you should start right away! —

```
#####
#
#           THIS SPACE COULD BE
#   FILLED BY YOUR PROGRAM/ARTICLE
#                   or
#           HARDWARE PROJECT
#
#   write or phone the Editor
#
#                   NOW!
#
#####
```

## Lets Talk Apples (and worms)

by D.S.Bloser, A.A.E.C., Ph.543-314

Some time ago I decided to go CP/M, and purchased a DIGITEK Z80 expansion card type DK23/5. Plugging the card into slot 4 we were off and running on 'BOOT' of Microsoft's CP/M. A few seconds later everything stopped and the character '?' appeared on the screen. I was worrying. The next thing I thought was "The smart card is crook, send it back". Then I remembered the trouble I had getting Pascal to go whilst strange interface cards were in other slots (IEEE GPIB and RS232).

So, removing all cards except the Language, Printer and Disc drive cards I booted again, RA-RA the thing ran and the A> prompt appeared. So far so good, next I FORMATTED a copy disc, 'it worked', then I COPIED all files across. Rebooting on the copy I got the 44K version up, however, everything "seemed slow". I was "worrying" again.

Anyhow, I made another copy and it too booted O.K. Doing a CPM56 for the Language card produced a 'No Boot'. Going back to the 44K version was O.K., so, getting into GBASIC and using AUTO compiled a short test program, this Listed so I ran it. Then all hell broke loose with characters scattered all over the screen. Was I "worrying" now. Suspecting the software I obtained software from another source, this too produced the same result, NoGo. Trying out the copy discs on a good friend's machine produced GO:GO:GO!

Conclusions:-

The DIGITEK card was O.K.

The Software was O.K.

Somewhere in my apple was a WORM!

Running Apple-Cillin diagnostic program produced a 'No Fault' condition. "Where was the Worm". Worry, worry, worry !!!

Now I was lost! so back to the supplier of the card to see if they could help. On ringing Seahorse Computers I got the instant response "She'll be right" and a request for information about those little black things on the mother board. Supplying this I got the reply "We'll get back to you" then the phone died.

I was still left worrying. Ten minutes later the phone burst into life with "Seahorse this end", "3 little black things on the way", "Plug'em in: it'll go".

Next day the little black things arrived, "fast workers those Seahorse boys".

Plugging in these leggy beasts I did a cold Boot of the CP/M master disc and 'bingo' up popped the A> prompt. FORMAT,COPY,CMP56 and a boot on the 56K version produced the prompt again. Running a GBASIC test program was A-O-K. I stopped worrying, everything was perfect.

Giving Seahorse Computers a bell to say "Thanks everything goes" brought the reply "Simple wasn't it", "all part of the service", "TAT-TAR", the phone went dead. "Great lads these Seahorse people".

Without going into detail some of the newer interface card integrated circuits run a lot smarter than those on the mother board, hence a conflict occurs during addressing operations. Apparently some 80 col cards and Z80 cards might not run properly.

The modification carried out here (curtesy Seahorse) might be useful to you apple users out there, so here goes. →

## MODIFICATION.

---

1. Switch off and remove cover and cards in the slots.
2. Locate the microprocessor chip on the mother board (6502) "the big one".
3. To the left of the 6502 the first three chips are marked on the mother board as 8T97... (H3,H4,H5) Hex Buffers.
4. Examine these chips and identify. If they are 8T97's, note the orientation and remove with an extractor.

5. Carefully insert three new chips Type SN74LS367AN. Hex Buffers and get the orientation right.
6. Put back your cards and the cover.
7. Switch on and Boot. "Simple wasn't it". "No worries".

Acknowledgements to Keith, Bruce and John at Seahorse for the very excellent assistance. —

---

## APPLE HELP — EXEC A SUBROUTINE

---

By Ed Mehrtens

If you have a routine or short program which does a fantastic job, have you ever thought about making it into a subroutine so that it can easily be used in other programs. Usually this is so messy a procedure that most people re-type that section of code. Typing something the first time shows wit but after that it is a geometric progression with a factor of .5, the next time is half witted and so on. Use the EXEC function on a TEXT file and it behaves as though you had typed it in, there and then. Now when you need your routine to do XYZ, instead of frantically hunting through all your disks, just go to the subroutines library, an EXEC and there it is attached to your program. This has an added advantage, you know the routine works and it has no typos.

Your Word Processor probably uses a text file (Sandy's definitely does and is always available in Bulk Purchasing). If the routines already exist, delete the parts which are not required then save the routines as a text file. If you have to type it in, go straight to Sandy's or your Word Processor.

From here it is all plain sailing as it is much easier to edit here than as an Applesoft program (especially with global replace in Sandy's). Insertions, deletions, replacements, renumbering and crunching are all easy inside the Word Processor.

I use line numbers above 30000 which is unlikely to conflict with a normal Applesoft program yet give plenty of room so that different line numbers can be used in different subroutines. Also keep some covention for variables, mine start with Z and usually have a form like ZP(4) for probabilities. You will be suprised how a program line can be packed (but remember the 254 limit and how the Apple unpacks a line).

Having written the subroutine and checked it, there is still one thing left to do, write a note explaining how it works, which variable names are used, if you need to GOSUB a line to DIM variables or start the routines etc. Invariably this takes 3 times as many sectors as the subroutine itself.

Everything is then complete and ready to use when ever needed. Do send a copy to Don Riley for inclusion on a club disk. —

## REVELATION ROUTINE

---

By John Rotenstein

SPEED. An every day necessity. Everyone wants it, and when they have it, they want more.

In computers, internal memory works at a couple of hundred nano-seconds. For obtaining data rapidly, it is a convenient speed. Memory, however, is quite limited. Hence the invention of the disk drive, a high speed data retrieval system. Or is it high speed?

Apple DOS has improved over the years. The difference between Dos 3.1 and 3.3 is really quite noticeable. Yet, people still want more. For this craving, along came versions of a faster DOS for the Apple. This included Sandy's FDOS, PRONTO-DOS, DAVID-DOS and DIVERSI-DOS, to name a few.

These faster DOS-es are a great improvement, or at least for program loading. The one thing they lack is the speed which memory has when accessing data. DOS has text files, but they are very slow to use.

That is, until now. With the coming of DAVID-DOS came a new DOS feature - the ability to load a Text File as if it was a Binary File. Fast and in the one hit.

"But," users comment, "what's the use of it being loaded into memory if the program can't access it?"

Good question, and here's the answer.

### Use the REVELATION ROUTINE

---

The RR is a revelation for lovers of speed. It is the poor man's RAM DISK. It works, is simple to use, and is FAST. What more could one want?

The RR takes up where DAVID-DOS left off. Once the Text File has been TLOADED into memory, the RR takes over. It allows access to a sequential and some random Text Files without continually accessing the disk.

In a test case, the RR cut processing time to UNDER HALF that of a normal READ.

"So its fast! But what about file size?", I here you ask.

Through another feature of the faithful DAVID-DOS, users who have a RAM CARD to their credit have an added advantage. By using the HIDOS command, an extra 8K is available for data storage.

The only other memory obstacle is how much memory the program which uses the RR takes up. The rest is for your data. If that is not enough, the file may have to be loaded in sections. Still not enough? Buy a Hard Disk!

"Tell us more!", the crowds of amazed users cheer.

Very well. The program is very short, and fits in page three. All access is meant for use from BASIC through the little-used USR command. It can easily be used by a machine language program, too.

To use the RR, one first loads the text file, or binary file with text if wished, into a particular place in memory, making sure it does not write over some other important data, such as DOS.

For those without DAVID-DOS, there are but two solutions. Either buy DAVID-DOS which is on special through the Club, or use it for binary files only.

Due to the absence of a TSAVE command, if files are to be written with the RR, they have to be saved back to the disk in the form of binary files. This is not so bad, because these binary files can be recalled for use with the RR in the same way as the text files.

For those not familiar with the USR command, it is quite simple. It can be treated just like a normal variable. In the instructions below, the variable X is being given the value of the USR function. If a number of USR commands are required, they may be used in a calculation. →

EG: X=USR (1) + USR (16384)

Or, they may be printed.

EG: PRINT "A"; USR (4)

The usage depends on the function.

#### HOW TO USE THE REVELATION ROUTINE

The RR can perform SEVEN different functions:

X=USR (0)

This command resets the RR and restores DOS. It should be used when the RR is no longer needed. It MUST be given BEFORE the user returns the immediate mode in BASIC.

X=USR (1)

This activates the RR read routine. All inputs after this command is issued are provided from the Text File in memory. The screen shows input as if an EXEC file was in use with "MON I" in effect. DOS is also disconnected.

X=USR (2)

This activates the RR write routine. All following PRINT statements are written into the Text File in memory. Nothing appears on the screen. DOS is also disconnected.

X=USR (3)

This returns the decimal value of the beginning of the File in memory. It is the value previously given with the pointer command (see below).

X=USR (4)

This returns the decimal value of the length of the file. It may not be the whole length, but rather how much has been written or read since the pointer command was issued.

X=USR (5)

This command returns the decimal value of the location in memory where information will next be read from or written to.

X=USR (6)

This sets the pointer to \$8000. See next command for details.

X=USR (<a number above 255>)

This is the pointer command. It tells the RR where to find the Text File in memory. It also resets the start and length indicators (above). This command MUST be issued before any information is read or written, so that the RR knows where to find it or to put it.

This value may range from -32767 to +32767. This limitation, however, makes it impossible to use \$8000 as a starting position. Therefore, USR (6) (above) must be used for information starting at \$8000.

Values above \$8000 can be found by subtracting the value from 65536. To obtain a \$X000 address, multiply X by 4096.

EG: 6 \* 4096 = \$6000

-> X=USR (6 \* 4096)

That's all there is to it!

#### EXAMPLES OF USING THE RR

The RR is easy to use when data is only required to be read. However, it can also be used to write new data. These two functions can be switched between at will, by just issuing the correct USR command. The pointer is not changed, and continues from where it left off, allowing editing of the file.

An example of this is in Sample Program ONE.

Line 10 sets HIMEM to \$7fff so that Applesoft does not overwrite the file at \$8000.

Line 20 sets the pointer at \$8000, and activates the write command.

Line 30 puts three lines of information into the file in memory. Note the mistake in the second PRINT.

Line 40 resets the pointer, and activates read mode.

Line 50 inputs one line, and leaves the pointer at the beginning of the second line of data in memory. →

Line 60 changes to write mode, without changing the pointer. It then prints "S" into the memory file. Notice the semi-colon. This is to make sure that a <RETURN> is not issued, as it would overwrite the "A" in mat.

Line 70 is the same as line 40.

Line 80 reads in the information, which is now corrected.

Line 90 resets the RR, for the return to BASIC.

If this newly written data is to be saved to disk, the addition of lines in Sample Program TWO should be made.

Line 100 simply defines CTRL-D.

Line 110 issues the DOS command to save. Note how USR commands 3 and 4 are used to provide the starting address and length in the print statement. The command only works since the RR was reset in line 90.

#### FOR MACHINE LANGUAGE USE

If the RR is to be used from machine language, the following patch must be made:

```
* 30D:EA EA EA
```

This allows information to be passed to the RR through \$A0 (high) and \$A1 (low). This order may seem strange, but it is how Applesoft operates.

To receive values back from RR, the bytes are placed in registers A (high byte), and Y (low byte).

A listing of the Routine is provided, but it is also available through the club library.

So now you can go ahead and enjoy the the revelation in speed without and equal loss of pocket.

#### SAMPLE PROGRAM ONE

```
10 HIMEM: 32767
20 X= USR (6) + USR (2)
30 PRINT "THE CAT": PRINT "MAT
   ON": ?"THE DOG"
40 X= USR (6) + USR (1)
50 INPUT A$
60 X= USR (2): PRINT "S";
70 X= USR (6) + USR (1)
80 FOR A= 1 TO 3: INPUT A$:NEXT
90 X= USR (0)
```

#### SAMPLE PROGRAM TWO

```
100 D$= CHR$ (4)
110 PRINT D$;"BSAVE FILE,A";
   USR (3) ;",L"; USR (4)
```

#### THE REVELATION ROUTINE

```
0300- A9 4C 85 0A A9 0D 85 0B
0308- A9 03 85 0C 60 20 0C E1
0310- A5 A0 C9 00 D0 65 A5 A1
0318- C9 03 F0 76 C9 04 F0 7B
0320- C9 06 F0 4F C9 05 F0 7C
0328- A0 FD 84 39 84 37 A0 1B
0330- 84 38 A0 F0 84 36 C9 01
0338- F0 07 C9 02 F0 15 4C EA
0348- 39 60 84 35 A\ 00 B1 FE
0350- 4C 62 03 A9 5C 85 36 A9
0358- 03 85 37 60 84 35 A0 00
0360- 91 FE E6 FE D0 02 E6 FF
0368- EE AD 03 D0 03 EE AE 03
0370- A4 35 60 A9 80 85 A0 A9
0378- 00 85 A1 A5 A0 85 FF 8D
0380- AC 03 A5 A1 85 FE 8D AB
0388- 03 A9 00 8D AD 03 8D AE
0390- 03 60 AD AC 03 AC AB 03
0398- 4C F2 E2 AD AE 03 AC AD
03A0- 03 4C F2 E2 A5 FF A4 FE
03A8- 4C F2 E2
```

To Save, type:

```
BSAVE REVELATION, A$300,L$AB
```

That's all for now. I've got to go- I'm in a hurry. —

## APPLE II <-> IBM-PC Communications

---

By George V. Kinal, courtesy of Washington Apple PI, August '83.

There are many programs appearing on the market which are intended to allow transfer of data between an Apple and the IBM-PC. I suppose that there may be a belief by some that a very specialised set of programs is needed to accomplish such transfers. I have found another way. Most of the results also apply to communications to other machines, especially CP/M systems.

As is probably well known, ordinary text can be sent between almost any two computers (with one minor problem having to do with line feeds). Although it might seem that there would never be any reason to send an Apple Binary or Appleoft file, at least one application may occur: using the non-Apple (or Apple operating under a different operating system) as a temporary intermediate storage for later transfer to another Apple. We have been able, for example, to store Apple Binary graphics files on the IBM-PC hard disk for later remote retrieval.

Some experiments were conducted using ASCII Express - Professional on an Apple IIe, and PC - Talk on the IBM-PC. Both of these programs employ the Christensen protocol for verified file transfer. Our first attempt concerned transfers of text files. In order to do so, the IBM should be considered to be a CP/M machine. That is, the CHFORM utility supplied with AE-Pro is used to convert the original DOS 3.3 text file into a CP/M compatible text file (the new file is still a DOS 3.3 file insofar as disk format is concerned). This takes care of the missing carriage returns and removes the eighth-bit-se. The new, converted "CP/M" text file is the one sent to the IBM. Text received from the IBM should also have the CHFORM "treatment", this time in the CP/M to DOS direction. These conversions apply only to file transfers, and not to direct buffered terminal communications.

Suppose the transfer of a file type other than text is attempted... Since there is no AE-Pro on the other end, the file is treated as if it were a text file, but transfers in both directions work just fine! That is, AE-Pro does not prohibit you from sending a non-text file. However, when a file is received by the Apple, there is no way to know that it is not a text file; the resulting file is designated as a text ("T") file in the CATALOG, regardless of what it really is. Now, a file which is a "T" cannot be RUN or BRUN, used by a graphics program, or by a word processing program which expects a Binary file. That's where the utility program listed below comes in. It simply changes the file type designation in the CATALOG; no internal changes are made to the file contents. This utility may have uses in word processing, or in other cases where changing the file type allows an otherwise unreadable file to be listed or loaded.

How is this better than the method suggested in the AE-Pro manual? AE-Pro comes with utilities which (offline) convert Applesoft (or Integer Basic) files to text equivalents (essentially, the program is LISTed in a new file). But when the program is converted in this way, its length increases some 20% to 30%. When the text-form listing is later received by another Apple, it must be EXECed into memory, then SAVED (again, off-line). Operating with a Binary file is even clumsier. The supplied utility does not convert the Binary disk file to a text equivalent. Rather, a Binary file must be BLOADED. You then find its address and length through the appropriate PEEKs or monitor examination. Then, one of the utilities BFD8 or BFD92 is applied to create a text file equivalent to be transmitted. But beware! Whereas a BASIC file grows 20% or 30% when converted, Binary files TRIPLE in length! →



For example, the 8K graphics image becomes a 24K text file (Graphics "packer" programs are available to compress such files). Such a file would take something like 20 minutes to send at 300 baud. Next, the conversion back to Binary by the recipient is tedious. The procedure is to use the Editor to attach a "CALL -151" in front of the file. This modified file is then EXECed, which is a horribly slow process. Now residing in memory is the appropriate Binary image. A BSAVE of the proper memory locations finally gives the recipient the desired Binary file on disk. WHEW! In contrast, with the Change File Type utility, there is only one manual, off-line step required: the recipient changes the file designation from it's improper "T" to "B".

Other communications programs which are implemented on both Apples and other machines (e.g. BLAST, ASCOM) may also be amended to the use of this technique. If the program will not permit you to send anything other than a text file, use the utility to change the file designation at the sending end (But, the software MUST be able to send 8-bit data, which is not always possible. Indeed, AE=Pro sends the full 8 bits only in verified mode). A very obvious use for this technique is in the transfer of spreadsheet data, e.g. VisiCalc files.

## Change file type in "CATALOG"

---

5 REM CHANGE FILE TYPE IN CATALOG

10 H1 = 38400

20 HIMEM: (H1 - 256)

30 HOME

40 PRINT : PRINT

50 DIM FM\$(50): REM FILE NAMES

60 DIM FQ(50): REM FILE TYPES

70 DIM FO(50): REM TRACK NUMBERS

80 PRINT " \* \* \* GEORGE'S FILE TYPE CHANGE \* \* \*": PRINT

" \* \* \* UTILITY \* \* \* ": PRINT

90 PRINT

100 PRINT "FILE NAME TO HAVE TYPE "

110 INPUT "CHANGED? ";NM\$

120 IF NM\$ < > "" THEN GOTO 200

140 PRINT CHR\$(4);"CATALOG"

180 GOTO 90

200 GOSUB 1000

260 PRINT : INPUT "ANOTHER ? (Y/N) ";CH\$

280 IF CH\$ = "Y" THEN GOTO 90

300 END

991 :

1000 REM \* \* CATALOG READER \* \*

1001 :

1020 POKE 47084,17

1040 POKE 47085,15: REM SECTOR 15 FIRST

1060 POKE 47092,1

1080 POKE 47083,0

1100 POKE 47091,0

1120 LOC = H1 - 255: REM RWTS BUFFER START

1140 POKE 47088,LOC - INT (LOC / 256) \* 256

1160 POKE 47089, INT (LOC / 256)

1170 POKE 768,32: POKE 769,227

1200 POKE 770,3: POKE 771,76

1220 POKE 772,217: POKE 773,3

1240 XE = 1

1260 CALL 768: REM CALL RWTS

1271 :

1280 FOR X = (LOC + 14) TO (LOC + 224) STEP 35

1300 JJ = INT ((X - LOC) / 35) + 1

1320 FM\$(JJ) = ""

1340 FOR Y = 0 TO 29

1360 FM\$(JJ) = FM\$(JJ) + CHR\$(PEEK(X + Y))

1380 NEXT Y

1400 FO(JJ) = PEEK(X - 3)

1410 FQ(JJ) = PEEK(X - 1): REM FILE TYPE

1420 NEXT X

1440 FOR X = 1 TO 7

1460 IF FO(X) = 255 THEN GOTO 1540: REM DELETED NAME

1480 IF NOT FO(X) THEN X = 7: NS = - 1: GOTO 1580: REM  
END OF LIST

1500 GOSUB 1610: REM GO SEE IF THIS IS THE ONE YOU  
WANTED

1520 IF YT THEN GOSUB 5000: REM MATCH WAS FOUND

1530 PRINT FM\$(X)

1540 NEXT X

1551 :

1560 NS = PEEK(LOC + 2): REM NEXT SECTOR

1580 IF NS > - 1 THEN POKE 47085,NS: GOTO 1260

1600 RETURN: REM FROM SUBROUTINE #1000

1601 :

1610 REM \* \* SPECIAL STRING MATCHER \* \*

1611 :

1640 L7 = LEN(NM\$)

1660 YT = 1: REM ASSUME MATCHED FIRST

1680 FOR QW = 1 TO L7

1700 LW\$ = MID\$(FM\$(X),QW,1): LX\$ = MID\$(NM\$,QW,1)

1720 LW = ASC(LW\$) - 128: LX = ASC(LX\$)



```

1740 IF LW < > LX THEN YT = 0:QW = L7
1760 NEXT QW: RETURN
4901 :
5000 REM * * CHANGE FILE TYPE HERE....* *
5001 :
5010 HOME
5020 PRINT "A FILE ENTRY WITH THE NAME ": INVERSE :
      PRINT ;FM$(X): NORMAL : PRINT "HAS BEEN FOUND, FILE
      TYPE:";
5030 PP = FQ(X)
5040 TY$ = ""
5050 IF ((PP = 0) OR (PP = 128)) THEN TY$ = "00 TEXT"
5060 IF ((PP = 1) OR (PP = 129)) THEN TY$ = "01 INTEGER
      BASIC"
5070 IF ((PP = 2) OR (PP = 130)) THEN TY$ = "02
      APPLESOFT"
5080 IF ((PP = 3) OR (PP = 131)) THEN TY$ = "03 BINARY"
5090 IF ((PP = 8) OR (PP = 132)) THEN TY$ = "08 S-TYPE"
5100 IF TY$ = "" THEN TY$ = "SPECIAL"
5110 INVERSE : PRINT TY$: NORMAL
5120 PRINT
5130 PRINT "WHAT TYPE OF FILE DO YOU WANT IT"
5140 PRINT " CHANGED TO IN THE CATALOG ?"

```

```

5150 PRINT "USE "; INVERSE : PRINT "ONLY "; NORMAL :
      PRINT "THE FOLLOWING NUMERICAL
5155 PRINT " -----DESIGNATIONS-----"
5158 PRINT
5160 PRINT " TEXT ..... USE '0'"
5170 PRINT " INTEGER BASIC ..... 1"
5180 PRINT " APPLESOFT ..... 2"
5190 PRINT " BINARY ..... 4"
5200 PRINT " S -TYPE ..... 8"
5210 PRINT " RELOCATABLE ..... 16"
5220 PRINT " A-TYPE ..... 32"
5230 PRINT " B-TYPE ..... 64"
5240 PRINT : PRINT "FOR NO CHANGE, ENTER '99'": PRINT
5250 INPUT "WHICH TO CHANGE TO ? ";CN
5260 IF CN = 99 THEN GOTO 260
5270 PK = LOC + ((X - 1) * 35) + 13
5280 POKE PK,CN
5290 POKE 47092,2: REM TO WRITE
5300 CALL 760
5310 POKE 47092,1: REM RESTORE READ
5390 PRINT : PRINT " * * GOING BACK TO CHECK * *"
5400 GOTO 1000: REM TO CHECK CONVERSION
5500 REM BY G.V.KANAL, WASHINGTON APPLE PI, 1983

```

→

## SOFT STORY

-----by John Rotenstein

Review Software supplied  
by IMAGINEERING

### =====

### CRIBBAGE + SOLITAIRE

### =====

by Art Carpet

Art has written a number of card games before, but this is a treat for the card freak.

Altogether, there are five games, the main on probably being Cribbage. Although somewhat different to Hi-res Cribbage, this presents an easy and quick game of cribbage, with a smart computer opponent, who knows all the rules.

Also supplied are four solitaire games. There are two versions of Klondike, the familiar Apple solitaire Game, Picture Frame, and Pyramid. All of these have fast graphics and easy playing.

I find the Solitaires best, even if it is quite odd that the it is played with your computer, which makes it a DUET.

### =====

### WAVY NAVY

### =====

Sirius

Some of you may remember back to Blister Ball and Mad Bomber, by Rod McAuley. Well, now he is back with his familiar graphics, and sound.

Wavy Navy is like Galaxians, and Kamikaze, yet completely different. You control a ship sailing on the very wavy seas, and you must shoot formations of aircraft above you.

There are planes, which occasionally dive down at you, helicopters with deadly accurate fire, bombers firing madly, and jet rockets flying fast.

There are three levels, 1 to 4 players, and music intervals from Paul Lutus' Electric Duet.

If you're hooked on shooting, but want to change, get hooked on this!

→

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KNOW YOUR APPLE

=====

Muse

This may not be of any use to the Apple Expert, but if you are just about to buy an APPLE, you should get this at the same time.

Basically, this package is to get you familiar with the Apple. A booklet has clear photographs and instructions, not only on how to insert the disk and run the program, but how to put together the Apple to start with, as in plugging in the controller card, and monitor.

There are 5 lessons in the package. There is the KEYBOARD which explains the ESC, CTRL and other keys. the DISK DRIVE, which explains about the disk, DOS, storage, and the drive. The BACK of the Apple, which explains the plugs at the rear. INSIDE, which shows RAM, ROM, slots, I/O, etc. And The MONITOR, which explains prompts and graphics.

The package uses hi-res graphics nicely, and is the ideal package when buying an Apple. There is also another version for the IIe.

=====

PRISONER 2

=====

Interactive Fantasies

This is probably only for those who enjoyed the original prisoner, for it is much the same, but with multi-colour hi-res graphics as seen in Interstellar Sharks.

Your objective is to get off THE ISLAND, and not reveal your secret number to anyone, no matter how much you are tempted.

There are twenty locations where you must solve riddles, get out of mazes, and the like.

It may only be a game, but don't let it drive you insane!

=====

FLIP OUT

=====

Sirius

No, this isn't a game of two-up or othello as the name may suggest. This is an original game with an addictive quality.

It's hard to explain, but I'll try. You drop marbles into a board which contains gates in the form of arrows. The marble either stops on the gate, flips the gate, or are re-routed into another lane of gates. The object is to get your ten marbles out before the opponent gets his out.

If that sounds confusing, it is still a good game, with nine board variations, and the ability to play against the computer, which is good, but not unbeatable.

You should give this one a go if you're sick of zapping and eating dots.

=====

CRITICAL MASS

=====

Sirius

No! Not another nuclear simulation, but the name of a great new hi-res adventure from Bob Blauschild, author of the revolutionary "ESCAPE FROM RUNGISTAN".

Whereas his previous invention was black and white, this is in full colour, with animation, (almost) real time clock, action, and (?) music.

Your mission is to save five cities of the world from being destroyed by nuclear weapons, and your only clue is that the warning threat was made from the zoo. The adventure takes you around the world to places like Paris and the Carribean.

It's surely an exciting adventure with quick action right from the start, and a sure winner.

—

## EAMON ADVENTURE SERIES

---

### PART 2: by John Scheduling

In this article I will deal with some further aspects of the Eamon adventures, including some general strategy. Programs referred to are available on AUG disk #19.

When a character is first created, he or she is given a certain amount of each of the 3 attributes Hardiness, Agility, and Charisma. The maximum possible amount of these attributes is 24, and so I agree with Ed Mehrtens (Applecations, Aug '82) that any character with less than 12 or so should be allowed to die quietly, or used as a 'scout' (which really amounts to the same thing). The least important quality is Agility, for this can be increased for a time by invoking the Speed spell.

Your newly created character is born with \$200. How should it be spent? You haven't enough money yet for spells, so buy a weapon (one is all you're allowed to take into Beginner's Cave) and some armour. Always buy a good quality weapon; I always get a mace since its immediate hit probability is highest. Also, always buy armour (leather will be all you can afford at this stage), because you build up armour expertise which is NOT lost when you trade up to better armour later. Lastly, buy a shield if you can afford it.

#### BEGINNER'S CAVE

Now your character is off on its first adventure. Of course, you will map it as you go. The one most important tactic, in all these adventures, is to collect friends (once you know where they are) BEFORE you fight enemies, if at all possible. In the Beginner's cave, this means finding the Hermit and Heinrich. These two are friendly more often than not. If they are not, try fleeing and then returning. This often causes them to become friendly.

Get the magic sword 'Trollsfire' early, ready it, and then get in some practice using it, as it will be your best weapon for several adventures yet. Fight all the battles you can, as this builds your weapon and armour expertise. If you have no conscience, you can even attack your friends just before leaving. This of course will allow you to acquire their weapons.

Incidentally, to perform the same action (such as 'attack pirate') again, you only have to press return - you only have to type a command if it's different from the previous one.

#### BACK IN THE MAIN HALL: SPELLS

So now you've saved the lovely Cynthia, and have arrived back safely with more than \$2000. Now you can trade in the old leather armour and buy chain instead, and see about buying some spells. (Don't buy plate armour until your Armour Expertise is at least 20%, or you will keep missing your opponents when attacking.)

There are 4 magic spells: Speed, Blast, Heal, and Power. When in an adventure, you may try to cast a spell at any time. They each have a certain initial probability of success, which then halves each time the spell is successfully cast. This probability finally gets to a minimum of 5%. There is also a 1% chance that you will 'forget' the spell altogether.

For me, the Heal spell is by far the most useful. It clears up some of the character's wounds, thus far increasing your chance of surviving a series of battles. This spell is best attempted when you are not in battle.

The other useful spell is Speed, which when successfully cast doubles the character's agility (and hence increases its chance to hit). This spell decreases in strength with each



turn, and is thus best cast one room before going into battle.

I find the Blast spell useful only if all my character's weapons have been destroyed. Otherwise, an experienced character will hit more often with a favourite weapon than with the spell. The Power spell I have never liked, because its effects are not only unpredictable, but more often than not, nasty as well.

When you visit the wizard to buy a spell, the prices you are quoted are selected from a list of prices; the particular set is chosen at random, but the choice is also influenced by a

character's charisma. Some typical prices are: B \$1154, H \$385, S \$1923, P \$38. Another set: B \$4286, H \$1429, S \$7143, P \$143.

Don't feel you have to buy at the first set of prices the wizard quotes you! If you were quoted the second set above, merely select a spell you can't afford. This gets you away from the wizard; then immediately go back again, and you will be quoted a different set of prices.

Your character is now ready to ride off into one of the 'real' Eamon adventures. See you next issue! —

---

## ADVENTURERS' CORNER

-----With Ed Mehrtens

### DARK CRYSTAL

Dark Crystal is Hi-Res Adventure No.6 from Sierra On-Line and is based on the movie of the same name. The game is quite lengthy requiring two disks (3 sides used), the object (as in the movie) is to find the missing crystal shard and place it in the dark crystal before the 3 suns are in alignment. Games can be saved to disk up to 15 times, so use this and remember that maps are essential.

#### SOME CLUES

- (1) Loose shale is useful
- (2) So is Ursu
- (3) Interesting looking liquid?
- (4) There is something near the tree
- (5) Talk to people
- (6) There is no way back up the slope
- (7) A magic flute is necessary
- (8) Float across the swamp on something
- (9) Listen to people and other things

- (10) The Moon Sisters ?
- (11) Ride the Landstriders to cross the chasm
- (12) Jen has wings, Kira hasn't
- (13) Evade the Garthim by jumping or running
- (14) Look for symbols, they mean something
- (15) The Fizzgig is small and obedient
- (16) Spying is rewarding, hide first
- (17) The sceptre is useful
- (18) Open the panel by hook or by crook
- (19) It may be magic but it is still a flute
- (20) Know the kiss of life
- (21) You may need something to ride the Landstriders
- (22) The Triangle within a Circle is a potent emblem

My thanks to Frank Revill and his son for supplying this information. Please keep those details of your adventures coming in. —

# AUG DISKS #34, PASCAL #7

## AUG DISK # 34+

=====

### Side 1

-----

A 008 AUG DISK # 34+  
 A 004 INFORMATION  
 A 011 MENU  
 A 026 LOGO  
 B 002 LOGO.OBJ  
 B 034 AUG LOGO.PIC  
 A 002 -----  
 A 017 NOTES (PLEASE RUN)  
 A 002 -----  
 A 019 APPLE COMPUTER TERMINAL  
 B 003 ACT/BIN  
 T 013 ACT/DESCRIPTION  
 A 002 ACT CCS CARD  
 A 007 ACT MODS FOR CCS 7710 CARD  
 B 007 ALPHA70  
 A 010 ANYTEXT70  
 B 003 AT70/BIN  
 A 003 SIMPLE TERMINAL  
 B 002 ST/BIN  
 A 003 ASCII CODE  
 T 012 ASCII  
 A 004 APPLESOFT-TO-TEXT  
 A 005 TEXT-TO-APPLESOFT  
 A 007 BINARY FILE DISASSEMBLER  
 B 003 BFD/BIN  
 T 004 BFD/DESCRIPTION  
 A 016 CASSETTE LABELLER  
 T 010 CASSETTE INST  
 T 008 CASS GLEN MILLER  
 T 008 CASS DEMO 1  
 T 007 CASS DEMO 2  
 T 004 C.ITOH F10-40 EXEC LISTER  
 A 005 COMMENTER  
 A 004 COPY SOME  
 A 043 FILE CABINET V  
 T 002 BASENAMEFILE  
 T 002 ADDRESS HEADERFILE  
 T 002 ADDRESS INDEXFILE  
 T 002 ADDRESS RPTFMTNAMEFILE  
 T 002 ADDRESS THREE RPTFMTFILE  
 T 002 ADDRESS FOUR RPTFMTFILE  
 A 016 HUFFIN  
 A 004 JOYSTICK TESTER  
 A 004 MAGNIFYING GLASS  
 B 005 M6/BIN  
 B 034 M6/DISPLAY  
 A 003 SWEEP  
 B 002 SWEEP/BIN  
 B 033 SWEEP/PIC  
 A 013 UPDATES  
 A 021 WORD GRINDER  
 A 010 HOW TO OPERATE WORD GRINDER

### Side 2

-----

A 008 AUG DISK # 34-  
 A 004 INFORMATION  
 A 011 MENU  
 A 026 LOGO  
 B 002 LOGO.OBJ  
 B 034 AUG LOGO.PIC  
 A 002 -----  
 A 006 NOTES (PLEASE RUN)  
 A 002 -----  
 A 002 A DATA BASE MGMT PGM (C)  
 A 040 HELP  
 A 048 CREATE.ADD  
 T 002 CURRENTFILE  
 A 048 EDIT.FILE  
 A 065 MERGE  
 A 065 SEARCH.SORT  
 A 052 TRANS.COPY  
 T 045 CONSTAR

### Brief notes for disk #34

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### SIDE 1 (+) NOTES

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1+: APPLE COMPUTER TERMINAL is 300 baud communications package from Ferg Brand for use with the 'No Frills' communications card described in Applications. It uses ACT/BIN and ALPHA70. Files AT70/BIN and ANYTEXT70 are also included. The 70 column files were originally released on AUG disk # 31-, but are repeated here to complete the package.  
 ACT MODS FOR CCS 7710 CARD  
 ACT CCS CARD are for users of this card. ACT/DESCRIPTION gives all the details.

2+: SIMPLE TERMINAL is a basic package for use with the 'No Frills' communications card. It uses ST/BIN.

3+: ASCII CODE lists the first 96 ascii codes to screen or printer. It uses ASCII.

4+: APPLESOFT-TO-TEXT will convert an Applesoft file to a text file.

5+: TEXT-TO-APPLESOFT will convert a text file on disk to an Applesoft file in memory. Enough disk space must be available for TEMPFILE, which is later deleted. Options are included for 'Print' statements on each line, and for a choice of line numbers.

6+: BINARY FILE DISASSEMBLER gives a continuous disassembly of a disk-based binary file. It uses BFD/BIN. File BFD/DESCRIPTION gives details.

7+: CASSETTE LABELLER generates smart labels for audio cassettes. Details are given in CASSETTE INST. Sample files are CASS GLEN MILLER, CASS DEMO 1 and CASS DEMO 2. The program is set up for a Dan Paymar chip and an Epson printer.

8+: C.ITOH F10-40 EXEC LISTER is exec'd on to the end of an Applesoft program so as to print a listing with left margin and fan-fold skip-over on the C.Itoh printer. Line numbers start at 63000.

9+: COMMENTER makes it easy to add comments to a DOS catalog listing.

10+: COPY SOME allows a normal copy program such as FID or COPYA to ignore checksums and epilogos on disks where these have been altered.

11+: FILE CABINET V is the latest version of this 'oldie'. Wayne Short has debugged and improved this into a reliable database. This copy includes an address file setup, and uses BASENAMEFILE and a group of five ADDRESS..... files.

12+: HUFFIN will convert a Pascal text file into a DOS text file. →

13+: JOYSTICK TESTER is a neat utility to test your paddles and joysticks.

14+: MAGNIFYING GLASS simulates a view of a 70 column hires text display as seen through a magnifying glass. It uses MG/DISPLAY, MG/BIN and, presumably ALPHA70.

15+: SWEEP is a hires display demo. It uses SWEEP/BIN and SWEEP/PIC.

16+: UPDATES is for those who already have AUG disk # 31. It corrects some minor errors in the 70 column display utilities.

17+: WORD GRINDER is a well documented but fairly basic word processor. Instructions are given in HOW TO OPERATE WORD GRINDER.

#### SIDE TWO (-) NOTES

1-: A DATA BASE MGMT PGM (C) is excellent data base for public domain use. The original program has been debugged and enhanced by Wayne Short, and now works well. It supports two disk drives, an 80 column card and most printers. Since it is Applesoft based, it suffers from garbage collection delays. Good instructions are given in HELP. Other files used are CREATE.ADD, CURRENTFILE, EDIT.FILE, MERGE, SEARCH.SORT and TRANS.COPY. CONSTAR is a sample data base. Run the header program or HELP to get started. Note that this program is copyright, but cleared for public domain use. It must not be used, in whole or in part, for any commercial purpose.

#### AUG PASCAL DISK # 7

=====

##### Side 1

###### IACBASE:

AUG.PASCAL.#7	4	6-Oct-83
MANUAL.PT1.TEXT	32	6-Oct-83
MANUAL.PT2.TEXT	22	6-Oct-83
SYSTEM.APPLE	32	9-Nov-80
SYSTEM.PASCAL	41	22-Sep-80

SYSTEM.MISCINFO	1	4-May-79
SYSTEM.LIBRARY	34	21-Jan-82
SYSTEM.STARTUP	2	21-Jan-82
AUGEMENU.CODE	3	21-Jan-82
AUGEINIT.CODE	5	21-Jan-82
AUGEENT.CODE	12	21-Jan-82
AUGEPRNT.CODE	9	28-Mar-82
AUGELIST.CODE	23	28-Mar-82
<UNUSED>	54	

13/13 files<listed/in-dir>,  
226 blocks used, 54 unused,  
54 in largest

##### Side 2

###### IACDOC:

SYSTEM.APPLE	32	9-Nov-80
SYSTEM.PASCAL	41	22-Sep-80
SYSTEM.MISCINFO	1	4-May-79
SYSTEM.LIBRARY	19	24-Feb-82
SYSTEM.FILER	28	18-Sep-80
SYSTEM.STARTUP	3	24-Feb-82
LOGO.PIC	16	24-Feb-82
AUGE.PIC	16	17-Mar-82
AUGESTART.TEXT	4	21-Jan-82
AUGEMENU.TEXT	6	21-Jan-82
AUGEINIT.TEXT	10	21-Jan-82
AUGEENT.TEXT	24	21-Jan-82
AUGEPRNT.TEXT	18	28-Mar-82
AUGELIST.TEXT	34	28-Mar-82
AUGELIST2.TEXT	18	28-Mar-82
(C)-1982.AUGE	4	28-Mar-82
<UNUSED>	0	

16/16 files<listed/in-dir>,  
280 blocks used, 0 unused,  
0 in largest

#### Brief notes for Pascal #7

-----  
This disk contains an excellently documented database, designed by Frank Pohlenmann of the Stuttgart Region of the AUGe. It is intended for club members wishing to log details of other members equipment and interests, as an aid to problem solving and furthering common interests. As set up, it requires only one disk drive, and is limited to 100 records, but should be easily extended if desired, since the source files are included on the disk.

The IAC disk was accompanied by a printed manual, which has been converted to two disk files so as to ease distribution problems. These files are on side one of the disk and will have to be transferred to another disk prior to running the program.

When the program is first run (after removing the manual files), type 'N' for New at the first command prompt line. This will regenerate the database files which had to be removed to make space for the manuals.

It is apparent that a considerable amount of effort has been put into this work, and should provide valuable information for those wishing to develop the system for other uses. The club library would appreciate any other versions of this database program which may result.

Should any member wish to organize the collation of information on equipment and interests for distribution with this database, please advise the committee.

```

*****
*
*           MARKET   DAY
*           -----
*           SUNDAY
*           NOVEMBER 20th
*           12 - 5 p.m.
*
*           at
*           SYDNEY GRAMMAR SCHOOL
*           Stanley st.   SYDNEY
*
*           Bring your unwanted
*           Software-Hardware-Books
*           --   MONEY   --
*
*           Auction-Door prizes-Raffles
*
*           Dealer-Sales enquiries
*           Phone
*           Anthony White 53-7568 ah
*
*****

```

## ----- LIBRARY ORDER FORM -----

Name:.....Ph:.....      | Stick address label here as proof of membership,  
Address:.....                | and to save writing.  
Suburb:.....                |  
State:.....Post Code:.....      |

### SOFTWARE LIBRARY LISTING:

```

AUG 1+2+3+4 x ( )  5+6+7+8 x ( )  9+10+11 x ( )
12+13 x ( )       14 x ( )       15 x ( )
16 x ( )         17 x ( )       18 x ( )
19 x ( )         20 x ( )       21 x ( )
22 x ( )         23 x ( )       24 x ( )
25 x ( )         26 x ( )       27 x ( )
28 x ( )         29 x ( )       30 x ( )
31 x ( )         32 x ( )       33 x ( )
34 x ( )

```

```

A-FEST'82 x ( )  PASCAL 1+2 x ( ) PASCAL 2+4x ( )
PASCAL 5 x ( )   PASCAL 6A x ( )  PASCAL 6B x ( )
CP/M 1+2 x ( )   CP/M 3 x ( )     PASCAL 7 x ( )

```

TOTAL NUMBER OF DISKS = (    ) X \$8.00 = \$.....  
Mailing cost \$1.50 ..... = \$ 1.50  
=====

TOTAL = \$.....

Please send the orders and cheques to:

APPLE USERS GROUP (Sydney)  
P.O.Box 505  
BANKSTOWN, N.S.W., 2200.

OR - Hand deliver to:  
AUG Mail Box,  
Computerland (Sydney),  
31 Market st, Sydney.

### PLASTIC DISK STORAGE BOXES:

Two -piece design with removable clear tinted lockable lid, which can be placed under box during use. Dividers provided.

40 disk size \$25.00 x (    ).....= \$.....  
90 disk size \$42.00 x (    ).....= \$.....  
Mailing cost @ \$2.00 per box (40 disk box)....= \$.....  
                  or \$4.00 per box (90 disk box ....= \$.....

=====

TOTAL = \$.....

### BLANK DISKS:

-----Control Data SSDD c/w Hub Rings  
Packs of 10 in cardboard boxes @ \$30 per box.  
Number of boxes required (    ) x \$30 = \$.....  
Mailing cost \$2.00 per box ..... = \$.....

=====

TOTAL = \$.....

Cheque/Money order for .....GRAND TOTAL = \$.....

DATE:            /            /1983

N.B.: All mail is surface, Air Mail is extra.



# **BULK PURCHASING SPECIALS FOR NOV.**

By Ed Mehrrens, Bulk Purch. Officer

Early next year we hope to be able to offer some of the excellent Call-A.P.P.L.E. products, especially the books "All about Applesoft", "All about DOS" and "All about Pascal", negotiations are underway now.

This month we have some old favourites, which are always in demand.

## **SUPER DISK COPY III**

This item has been out of stock for some months but has now returned. As I have reviewed it before, all I will say is that it is my most used utility.

Normally \$52 yours for \$45

## **MULTI-DISK CATALOG**

Again an oldie but a goodie, keeps track of all your programs. Lists by filename, type, classification, size of file or disk number. Avoid the frantic "Program Hunt" with Multi-Disk Catalog.

Normally \$45 yours for \$40

## **DAVID-DOS**

This product was reviewed in the last issue and it is a 'must have' utility for anyone using disks. Many extra commands are available such as / for CATALOG, DUMP for Binary/ASCII display, HIDOS to move DOS to a memory card, TLOAD, AL, and many others. This product is not available in Australia but there are a few left from our recent bulk order.

Special-import price \$69

## **VISION 80**

An 80 column text card which has long been available for the Apple II and now for the IIe as well. It is also compatible with CP/M and Pascal. Not only does it give a full 128 upper and lower case (with true decenders) characters (in a 9x11 matrix) but also a set of line and block graphics characters. "BYTE" gave the Vision 80 the highest rating of any similar device for the Apple. Now is your best time to buy one.

Recommended Retail \$295

Special Club Price \$250

## **VISION-128 & VISION-256**

These are 128K and 256K memory expansion cards for both Apple II and IIe. They are compatible with the Vision 80 of course, and are slot independent, so they don't have to be in slot 0. Imagine super sized Visicalc or Spread Sheet models, dump massive files to the printer or modem, the uses are endless.

CARD	RECOMENDED RETAIL	CLUB PRICE
Vision-128	\$499	\$425
Vision-256	\$699	\$600

## **SUMMARY:**

SUPER DISK COPY III	-\$ 45
MULTI DISK CATALOG	-\$ 40
DAVID-DOS	-\$ 69
VISION 80	-\$250
VISION-128	-\$425
VISION-256	-\$600

## **>>>>>> TWO MONTHS >>>>>>**

Bulk purchase specials are only available for two months, during which time they will be advertised on the back order page! The concept of bulk purchase is that orders are placed together so as to obtain the largest quantity discount.

**Orders placed after this time cannot be accepted.**

# Apple Users Group (Sydney)

## MEMBERSHIP FORM

Name:.....Ph:.....

Address:.....

Suburb:.....

State:.....Post Code:.....

New Membership :   Joining Fee \$15 .....= \$.....  
                      1983/4 Subscription   \$20 .....= \$20.00  
                      Overseas Surface Mail + \$4.00 = \$.....  
  =====

Attached cheque or Money Order for TOTAL.....= \$.....  
                                  DATE:       /       /1983

Change-of-Address: New address above/Old label attached( )

The group meets at 6.30 p.m. on the second monday of each month (tuesday after a holiday monday) at:  
SYDNEY GRAMMAR SCHOOL, Stanley st. SYDNEY.

We share experiences, demonstrations, trade ideas, goods, and discuss developments in the Apple world.

Benefits of membership are:

Regular issues of 'APPLECATIONS'  
Access to our Software library  
Low-price Bulk/purchase goods.

To become a member, please complete the Order form, enclose the correct money, and send it to the AUG.

Company, Institution, or associate Club membership is available.

## BULK PURCHASE ORDER FORM

Name:.....PH:.....

Address:.....

Suburb:.....

State:.....Post Code:.....

Bulk/Purchase Offers: November       EXPIRES 30th.DEC.  
-----  
  =====

SANDY'S Word Processor.....- @ \$160.. (x    ) = \$.....  
DAVID-DOS .....- @ \$ 69.. (x    ) = \$.....  
SUPER DISK COY III.....- @ \$ 45.. (x    ) = \$.....  
MULTI-DISK CATALOG.....- @ \$ 40.. (x    ) = \$.....  
VISION - 80 .....- @ \$280.. (x    ) = \$.....  
VISION - 128 .....- @ \$425.. (x    ) = \$.....  
VISION - 256 .....- @ \$600.. (x    ) = \$.....  
Mailing cost \$1.50/disk.-.\$2/package.- (x    ) = \$.....  
Please don't mail, I will collect at meeting (    )

Cheque/Money order for TOTAL..... : \$.....  
                                  DATE:       /       /1983

N.B.: All mail is surface, Air Mail is extra.

## APPLECATIONS

Copy is always needed for the magazine.  
This can be programs, or useful subroutines, with suitable documentation. The greatest value is obtained when a technique can be understood by the readers so that it can be further utilised.  
Reviews are welcome because they enable other Apple owners to assess the usefulness of a product before buying.  
Hardware modifications should be supplied with clear constructional details.

All material is preferred supplied in text file format on a disk, which will be returned after copying.

-----  
Advertising may be arranged by phoning Bruce Stanley at (02) 98-6972 a.h.

Stores wishing to obtain copies of the magazine for counter sales should contact the editor.

Please send the orders and cheques to:  
label here as proof of membership,

! Stick address

-----OR - Hand deliver to:  
writing.

! and save

APPLE USERS GROUP (Sydney)       AUG Mail Box,  
P.O.Box 505                       Computerland (Sydney),  
BANKSTOWN, N.S.W., 2200.       31 Market st, Sydney.

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;

# What's the 'e' stand for?

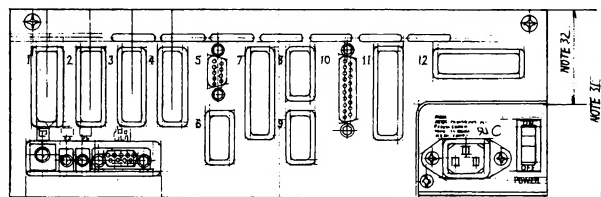
"Enhanced."

Which is another way of saying that Apple's come out with an impressive new version of the already impressive Apple® II, the world's most popular personal computer.

What's more, the Apple IIe has a bundle of features not found in the Apple II without the "e."

For example:

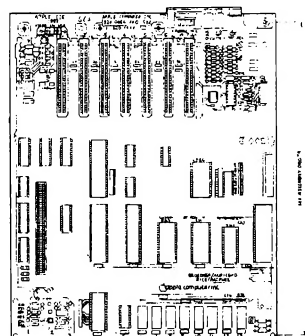
A standard memory of 64K



Improved peripheral ports make it easier to connect and disconnect disks, monitors, printers, game controllers and more.

(versus 48K) that's easily expandable so you can create fatter files and crunch larger numbers of numbers.

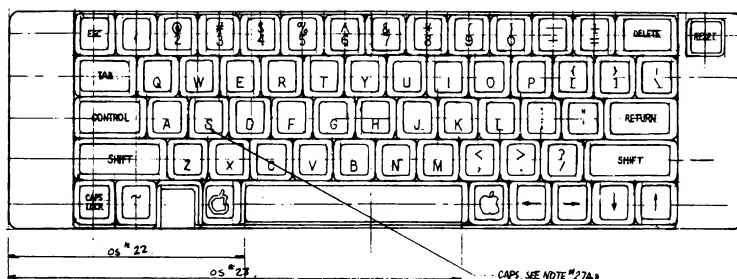
A new, improved keyboard, with a complete set of ASCII standard characters. Plus full cursor controls, programmable function keys and a rapid auto-repeat feature



The Apple IIe mother board provides more memory using far fewer components than that of its predecessor, for even more reliability.

built into every key on the board.

Both upper and lower case characters. (And if you want to



A full ASCII keyboard makes the IIe even easier to use.

see more of them on the screen at one time, a low cost 80-column display is available.)

Improved peripheral ports.

Which make it a lot easier to connect and disconnect printers, game controllers and all those other wonderful things that go with an Apple Personal Computer.

Self-diagnostics. A special feature that makes it easy to

give your computer a thorough check-up.

Plus an even more reliable design. Achieved by reducing the number of components—which is to say, the number of things that could go wrong.

Also, bear in mind, all of the above makes the Apple IIe substantially easier to use.

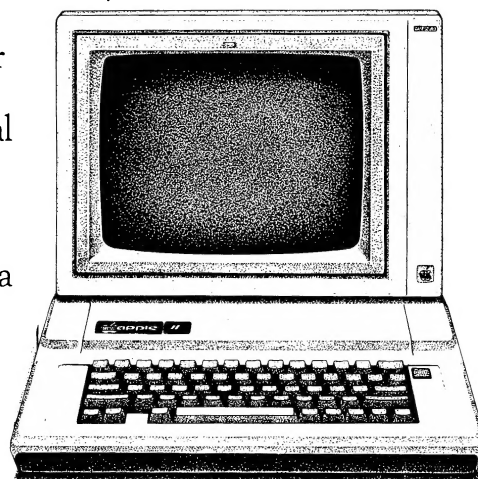
Especially when you consider that it still has all those other virtues that made the Apple II the standard of the industry.

Including access to more accessories, peripheral devices

and software than any other personal computer you can buy.

So come on down to our store, to experience the IIe for yourself, and to learn more about what the "e" stands for.

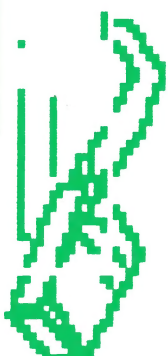
We'll be happy to spell it out for you.



The most personal computer.

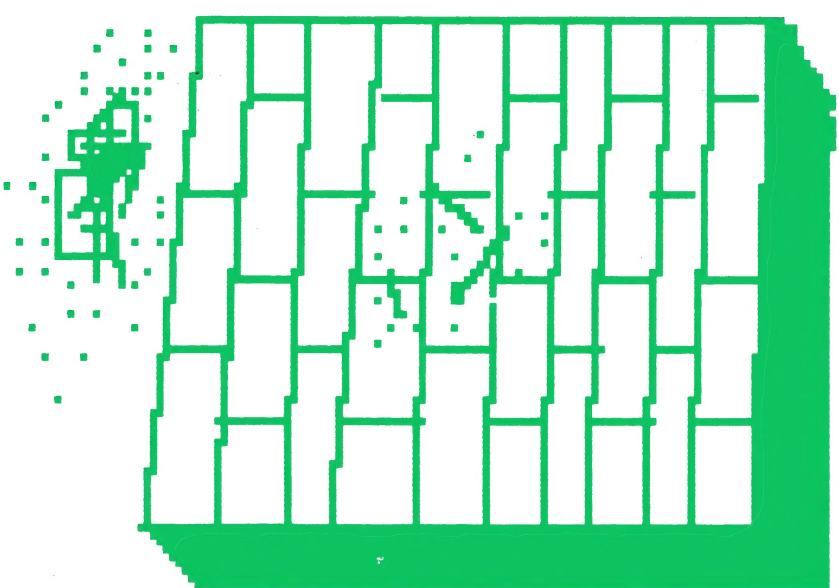
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# FUTILITY DRINKS?



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...SEND TO BOARD  
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**\$25.00**

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